



California Regional Water Quality Control Board

Santa Ana Region



Terry Tamminen
Secretary for
Environmental
Protection

3737 Main Street, Suite 500, Riverside, California 92501-3348
(909) 782-4130 • Fax (909) 781-6288
<http://www.swrcb.ca.gov/rwqcb8>

Arnold Schwarzenegger
Governor

July 16, 2004

Mr. Peter A. Nyquist
Weston Benshoof Rochefort Rubalcava MacCuish LLP
333 South Hope Street, Sixteenth Floor
Los Angeles, CA 90071

COMMENTS ON PROPOSED WORK PLAN FOR ADDITIONAL PERCHLORATE INVESTIGATION AT ASTRO PYROTECHNICS (LOT 7), 2298 WEST STONEHURST DRIVE, CITY OF RIALTO, SAN BERNARDINO COUNTY

Dear Mr. Nyquist:

Board staff has reviewed the June 25, 2004 submittal entitled "Work Plan for Additional Perchlorate Investigation" for San Bernardino County Assessor Parcel No. 1133-071-07 (Lot 7), 2298 West Stonehurst Drive (site), Rialto, California. Kleinfelder submitted the work plan on behalf of your client, Pyro Spectaculars, Inc., on June 25, 2004, in compliance with Cleanup and Abatement Order (CAO) No. R8-2004-0042. The CAO was adopted by the Regional Board on April 30, 2004, for investigation and cleanup of perchlorate at the five-acre parcel by Pyro Spectaculars, Inc, Thomas O. Peters and the Peters Trust, and Whittaker Corporation. I approve the proposed work plan, provided that the site inspection and additional chemical analyses and sampling points described below are incorporated into the plan.

The objective of the proposed additional investigation is to further assess the lateral and vertical extent of perchlorate in the soil beneath the former liquid collection pads, specifically those associated with the chemical mixing rooms in Building Nos. 1, 8, 10 and 15. During previous soil investigations at the site, perchlorate was detected in 12 samples at the above-referenced locations at concentrations ranging from 1.2 milligrams per kilogram (mg/kg) to 32 mg/kg. The highest perchlorate concentration of 32 mg/kg was found at the 10-foot depth in an exploratory trench excavation beneath the liquid collection pad next to Building No. 10.

The proposed field work at Lot 7 consists of a total of 16 soil borings to be drilled using a combined direct-push and hollow-stem auger drilling technology. According to Kleinfelder, the proposed soil borings will be advanced to maximum depths of 50 feet, or to the point of refusal of the drill rig. Soil samples are proposed to be collected at 10-foot intervals or where observed field conditions suggest the potential for favorable recoveries (i.e. to recover fine-grained materials where available). The soil samples

are proposed to be collected with a push probe macro core sampler or with a California modified split spoon sampler lined with brass sleeves. Both ends of the sample sleeves will be covered with Teflon sheets and sealed with tight-fitting plastic end caps, and the sleeves will be labeled. Soil samples will be analyzed for perchlorate, using U.S. EPA Method 314.0. The soil borings will be abandoned with a bentonite grout or hydrated bentonite chips.

If refusal is encountered at the boring locations at depths less than 20 feet below ground surface (bgs), the rig will be moved a few feet from the original location and a second attempt to reach a minimum depth of 20 feet will be performed. According to Kleinfelder, soil borings able to achieve recoverable samples to a depth of 20 feet bgs or greater before refusal will be considered completed, and additional sampling will not be attempted. If soil boring attempts using direct-push and hollow-stem auger in both the original and revised locations are not successful in reaching the target minimum depth of 20 feet bgs, trenches are proposed to be excavated using a wheel-mounted backhoe.

We approve the proposed drilling, sampling, and analytical protocols, provided that, in addition to testing for perchlorate, all 20-foot soil samples are analyzed for volatile organic compounds, using U.S. EPA Method 8260, and all 10-foot soil samples are analyzed for metals, using U.S. EPA Methods 6010B and 6020. In addition, an advance site inspection must be arranged between Kleinfelder, Pyro Spectaculars representatives and Board staff, during which additional sampling points next to the former mixing rooms in Building Nos. 14 and 17 will be selected. The additional sampling locations will be identified in areas that Board staff believes will be accessible in the field, and where additional soil information would prove useful. Board staff also believes that some of the currently proposed soil boring locations may need to be modified during the proposed site inspection in order to ensure that the proposed locations are representative of areas where soil may have been impacted as a result of spills and/or discharges of wastewater from the former liquid collection pads.

Since the soil at the site is known to be very coarse-grained, including small to medium-sized boulders, interbedded with fine-grained soils, we are aware that the proposed drilling method (direct-push and hollow-stem auger drilling) is not likely to be successful. Board staff therefore concurs with Kleinfelder's proposal to excavate trenches to a depth of 20 feet if a minimum depth of 20 feet cannot be reached by drilling. Although excavating trenches may not reach depths suitable to fully characterize the vertical extent of soil impacts, the trench excavation approach will provide further analytical data, which will be used to evaluate the need for additional investigations that may be necessary to define the lateral and vertical extent of contamination at the site.

Please schedule a joint inspection of the site no later than July 30, 2004. Once our joint inspection of the site has been completed and revised sampling locations have been agreed upon, you should submit a revision to this work plan to include the new sampling locations and additional chemical analyses described earlier in this letter. In addition, a schedule for completion of the field work and submittal of the final report should be included in your revised work plan. The revised work plan and schedule must be submitted to Board staff by August 16, 2004.

Please be aware that the need for additional site investigation of the soil and groundwater will be evaluated once this phase of investigation has been completed and Board staff has reviewed and evaluated the soil sampling results.

Please notify the following individuals at least 24 hours prior to all field work to allow for inspection and oversight as needed: Kamron Saremi, RWQCB, (909) 782-4303 and Wendy Arano, DTSC, (714) 484-5480

If you have any questions, please contact me at (909) 782-3284, or Robert Holub, Division Chief, at (909) 782-3298.

Sincerely,



Kurt V. Berchtold
Assistant Executive Officer

cc: Jorge Leon, SWRCB, Office of Chief Counsel
Richard Orr, Kleinfelder
John Van Vlear, Voss Cook & Thel LLP
Richard Dongell, Dongell Lawrence Finney, LLP
Inland Empire Perchlorate Regulatory Task Force (mailing list attached)

KS: Rialto perchlorate/CAOR8-2004